

REMARKS

In view of the above amendments and the remarks to follow, reconsideration and allowance of this application is respectfully requested.

Independent claims 1 and 5 have been amended. Accordingly claims 1-5 are presented for reconsideration.

Claim 1 was rejected under 35 U.S.C. 103(a) as being unpatentable over Motoda (U.S. Patent 4, 588,341) in view of Araake (GB 2337325A), Hoflinger (U.S. Patent 5,103,087) and Fisher (U.S. Patent 4,701,096). Claims 2 and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Motoda (U.S. Patent 4, 588,341) in view of Araake (GB 2337325A), Hoflinger (U.S. Patent 5,103,087), Fisher (U.S. Patent 4,701,096) and further in view of Schell (U.S. Patent 3,951,228). Claims 3 and 4 were rejected under 35 U.S.C. 103(a) as being unpatentable over Motoda (U.S. Patent 4, 588,341) in view of Araake (GB 2337325A), Hoflinger (U.S. Patent 5,103,087), Fisher (U.S. Patent 4,701,096) and further in view of Selusnik (U.S. Patent 3,974,922).

Independent claims 1 and 5 have been amended so that both claims recite the limitations “air cleaning means provided at an upper portion of said second track stock section, said air cleaning means cleaning outside air and then introducing the air into said second tray stock section” and “products that are loaded on the empty tray existing in said first tray stock section are carried within the loaded tray to said second tray stock section, and are stocked in said second tray stock section that has air cleaned by said air cleaning means.” Support for this recitation is set forth in the application as originally filed at least in Figures 1, 5 and 9.

It is submitted that none of the cited references, either independently or in combination, discloses or suggests particular limitations recited in amended independent claims 1 and 5. Specifically, the cited references do not disclose or suggest (1) an ionized air flow in the direction opposite to the direction the product is transported and (2) keeping the products free from exposure to contaminants present in an environment outside the apparatus while the products that are loaded on the empty tray existing in a first tray stock section are carried within the loaded tray to a second tray stock section, and are stocked in the second tray stock section that has air cleaned by the air cleaning means.

Independent claims 1 and 5 recite an ionized air flow in the direction opposite to the direction the product is transported. The function of this limitation is to completely remove from the entire product contaminants present in the environment outside the apparatus. This limitation helps achieves this function by providing for a relatively quicker flow of air over the products due to the flow of ionized air in a direction opposite to that direction the products are transported and due to an exhaust fan pulling the ionized air away from the products also in a direction opposite to the direction the products are transported. The Examiner states that "Hoflinger teaches blowing air opposite to a product conveying direction in order to better remove dust." (Office Action, Page 3, lines 4-5). Applicant respectfully disagrees with this assertion.

Hoflinger discloses a flow of dust free air 12 in a direction perpendicular (not an "opposite" direction) to the direction from which a bottle 4 is transported into and then out of apparatus 2 through access channel 3. (Col. 2, lines 56-62). Rather than completely remove dust from the entire bottle, this arrangement functions to minimizing the dust within an optical path and only on those areas of the bottle's surface in line with that optical path so as to minimize sampling

errors due to dust. (Col. 3, lines 1-5). Therefore, Hoflinger does not disclose or suggest an air flow in a direction opposite to the direction a product is transported so as to ensure that dust is effectively removed from the entire product as recited in amended claims 1 and 5.

Independent claims 1 and 5 have been amended to recite products that are loaded on the empty tray existing in a first tray stock section are carried within the loaded tray to a second tray stock section, and are stocked in the second tray stock section that has air cleaned by the air cleaning means. Independent claims 1 and 5 also recite an outer wall constituting member covering at least side surfaces and upper surfaces of said first trays stock section and said second tray stock section to separate said first tray stock section and said second tray stock section from an external atmosphere. These limitations function to keep the product free from exposure to contaminants present in the environment outside the apparatus while the products are carried from a first tray section where dust is initially removed with a directed flow of ionized air to a second tray section where the air has been filtered to remove the contaminants present in the air outside the apparatus. Motoda discloses a tray loading portion 11 and an article delivery portion 16, lift means in each portion 31, 32, and lateral movement means in each portion 32, 33 wherein both portions are open structures which provide no protection from an outside environment. (Fig. 4). Araake discloses a single chamber device 1 having an air jetting means 5 to blow dust off of an assembly 2 within the single chamber and a sucking means 11 to remove the dust blown off of assembly 2 within the single chamber. (Fig. 3). Fisher discloses a wafer handling station 30, a loading island 20 and a movable elevator 40 connecting wafer handling station 30 and loading island 20 along the longitudinally outside frame of these structures. (Fig. 1). Wafer handling station 30 includes an air flow pattern 244 that helps maintain a clean

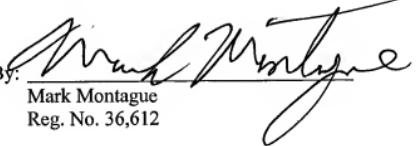
condition within that station and loading island 20 includes an air control system 24 to help prevent particulate and other contaminations of wafers positioned within that island. (Fig. 14). When transferring wafers, movable elevator 40 removes wafers from wafer handling station 30 and its clean air condition through an elevator transport access port 36, longitudinally transports the wafers through an outside environment, and deposits the wafers onto internal loading mechanism 22 within loading island 20. (Col. 4, lines 22-34). Therefore, the cited references do not disclose or suggest, either individually or in combination, keeping the products free from exposure to contaminants present in an environment outside the apparatus while the products that are loaded on the empty tray existing in a first tray stock section are carried within the loaded tray to a second tray stock section, and are stocked in the second tray stock section that has air cleaned by the air cleaning means.

Since Motoda, Araaka, Hoflinger and Fisher fail to disclose or suggest all the limitations recited in claim 1 and 5, and because Schell (cited in rejection of claim 2 and 5) and Selusnik (cited in rejection of claims 3 and 4) also fail to disclose those missing limitations, claims 1 and 5 are patently distinct and unobvious over the cited references. It is therefore requested that the rejection of claims 1 and 5, as well as dependent claims 2-4, be withdrawn.

In light of the foregoing, reconsideration and allowance of this application are respectfully requested.

Respectfully submitted,

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